PART VII.—CATTLE-BREEDING AND CATTLE-DISEASES.

1. The purchase of bulls to improve the breed of cattle is quite a legitimate object on which to expend Local Funds, but all such animals should be placed in charge of villages which will guarantee that they are taken care of by the village herdsmen, and not allowed to wander loose to pick up a living as they can. (G. R. No. 2387, dated 20th April 1876.)

2. Government would be glad to see measures adopted by the various district Local Fund Committees in view to the improvement of the breed of cattle including buffaloes, and consider that the desired end can best be attained by the purchase and location at suitable places of bulls of the best varieties procurable. In the Konkan, where horned cattle do not as a rule thrive, such a step is perhaps not expedient, but in Gujarát and the Deccan the experiment might be made with reasonable prospects of ultimate success. In Sind no special arrangements are requisite.

(2). It will be for the Local Fund Committees to take such action as may appear expedient, and as the condition of their funds will admit of. The measure would at first be of an experimental nature and therefore a large outlay at starting would not be judicious, but a beginning might be made by purchasing for each district in which the experiment is to be tried four bulls and two buffalo-bulls. Bulls at the head-quarters station should be under the supervision of the Huzúr Deputy Collector. Bulls located elsewhere should be placed in the charge of the Mámlatdárs. No fee should be charged for the use of the bulls, and every effort should be made to induce the cultivators to avail themselves of the services of these animals.

(3). The superior bulls needed could probably best be obtained from Káthiáwár, and the Political Agent should be requested to give all the assistance in his power to Collectors desiring to purchase bulls in Káthiáwár on behalf of Local Fund Committees.

(G. R. No. 2482, dated 15th April 1882.)

3. In cases of export of cattle on a large scale, the Health Officer of the Port of Bombay is authorized before granting a clean bill of health to the vessel carrying the cattle to demand a certificate from a Veterinary Surgeon to the effect that the cattle are free from bovine epidemic disease. When this certificate is obtained it may be countersigned and attached to the bill of health. (G. R. No. 8472, dated 12th December 1887.)

4. The Director of Land Records and Agriculture is authorized to communicate, in direct correspondence with any Foreign Consul who may apply for it, any available information regarding the existence or otherwise of cattle-disease in any district of the Presidency. The Government of India have no objection to arrangements being made for communication of any information to Foreign

Consuls which does not materially add to the work of provincial officers, provided that no absolute guarantee or certificate be given that cattle-disease does not exist in any district. (G. I., R. A., Nos. $\frac{3}{50}$, dated 3rd February 1893, and $\frac{15}{50}$, dated 24th April 1893; *vide* G. Rs. Nos. 1454, dated 22nd February 1895, and 5220, dated 19th July 1893.)

5. Whenever an opportunity occurs for examining the blood of animals supposed to have died from anthrax, a report stating whether the symptoms during life, and *post-mortem* appearances, also microscopic observations on the blood, indicated the presence of true anthrax should be made to Government through the Principal of the Bombay Veterinary College for communication to the Inspector-General, Civil Veterinary Department. (G. R. No. 4295, dated 14th June 1889.)

6. The following procedure has been prescribed by the Government of India with a view to ensure the co-operation of the Civil and Military authorities in taking measures for the prevention and repression of contagious animal diseases :—

(1) When any contagious or infectious disease appears among animals at a horse or cattle fair, or in the neighbourhood of a cantonment, or of a line of military communication, the district or sub-divisional officer shall immediately report the fact and the nature of the disease to the nearest military authority, who will be responsible for communicating the information to any other military authorities whom it may concern.

(2) When such disease appears in a camp or cantonment, or among animals under military authority on a line of communication, the facts shall be immediately reported by the military authorities to the district or sub-divisional officer within whose charge the disease has appeared.

(3) The principal local authority, whether civil or military, within whose jurisdiction the disease has appeared, should keep the local military or civil authority (as the case may be) informed of the preventive or repressive measures that he has adopted, so that the action taken by the one may be, as far as possible, continued by the other. Any suggestions that either authority may have to make for action on the part of the other, with a view to checking the spread of the disease, should be made to him direct. The latter, on receiving them, should give them his best attention, and should inform the authority who made them, how far he feels himself able to accept and act upon them.

(4) The direct communication between the local authorities enjoined in the above rules in no way supersedes the necessity of reporting the fact on an outbreak for the information and orders of superior authority under any rules or practice that may be from time to time in force.

(G. I., R. & A., No. 4—29, dated 6th February 1895 ; *vide* G. R. No. 2004, dated 12th March 1895.)

7. The Principal, Bombay Veterinary College, is authorized in cases of outbreaks of any severe epizootic disease to depute at once, on a requisition from a District or Táluka Local Board made through the Collector of the district concerned, a suitable man to the seat of outbreak, responsibility for selection of the individual being left with the Principal. The man so sent out should be equipped with instruments, medicines, &c., by the Principal, who will be responsible that no overexpense is made. (G. Rs. Nos. 1464, dated 2nd March 1888, and 119, dated 8th January 1889.)

8. The following forms for reporting outbreaks of cattle-disease have been prescribed. Form I is a village form intended for prescription under the manual as supplementary to Village Form XIV. Form II is for the use of all officers whose duty it will be to report to the Collector. These officers should make their report at once on learning of the outbreak of disease. The reports will most frequently be made by Mámlatdárs from information supplied by Circle Inspectors in their diaries and from village officers in Form I. The other officers will get their information by personal enquiry when on tour, and they should report accordingly without reference to any previous reports which may have been made by village officers to the táluka.

The Superintendent, Civil Veterinary Department, should send a copy of the Report in Form III that may be received by him to the Inspector-General, Civil Veterinary Department.

VILLAGE FORM XIV.

(C. V. D. FORM I.)

E.—*Statement of Diseases of Horses and Cattle (including Camels, Sheep and Goats) in the Village of , Táluka District for the week ending 189 .*

(To be submitted only during prevalence of disease.)

Kind of Animal attacked by disease (oxen, buffaloes, horses, camels, sheep or goats.)	Number attacked.	Number died.	Local Name of Disease.	Symptoms of the Disease.	Remarks, Treatment adopted, &c.
1	2	3	4	5	6

(G. R. No. 5220, dated 19th July 1893.)

C. V. D. FORM II.

(For the use of Mámlatdárs and Mahálkaris, District Inspectors, Veterinary Graduates, Divisional Inspectors, and Sub-divisional Officers.)

Report of Epidemic or Contagious Cattle-disease (Horses, Oxen, Buffaloes, Camels, Sheep and Goats).

District. *Táluka.*

Villages affected.	Date of first appearance.	Class of Animals affected (horses, oxen, buffaloes, camels, sheep, goats).	Number attacked since first appearance.	Number died since first appearance.	Vernacular name (in Vernacular and English script) and English name of disease (see back).	Symptoms observed (see back).	Approximate number of animals still affected.	REMARKS. (i) Has the disease been seen in the district before? (ii) Is it spreading? (iii) How was it introduced? (iv) What measures have been taken for treatment or to prevent spread?
1	2	3	4	5	6	7	8	9

(Date and Place of Report.) (Signature.)

Note.—On information received from Village Officers or Circle Inspectors or otherwise, the officers named will at once take steps to obtain the information required in this report, and will forward it to the Collector. If all the information cannot be obtained with certainty at once, the report should be sent in as complete a form as possible. The Collector will in each case make arrangements in his discretion for further reports, weekly or otherwise.

Schedule of Diseases.

1. *Glanders.*—Discharge of sticky material from nose which sticks about nostril, ulcers in nose, swelling of gland under jaw, lungs become affected, animal gets very thin; dies after some weeks. Horse, ass, mule.

2. *Surra.*—Fever sometimes worse, sometimes better, animal rapidly gets thin and weak, swelling on legs and under the belly; death in about a month. Horse and mule.

3. *Ludiana Disease.*—Rapid swelling of throat, difficulty in breathing, discharge of oily yellow matter from nose, sometimes swelling of legs; death in from 4 to 21 days. Horse.

} Horses, mules and asses only.

4. *Charbon Symptomatique.*—Appearance of a swelling suddenly on some part of the body or limbs, which if pressed crackles under the hand; attacks young animals; very rapidly fatal; high fever, and death, 7 to 50 hours. Cattle.

5. *Pleuro-Pneumonia.*—Cough, loss of appetite, staring coat, hurried breathing; animal grunts during expiration, often stands with head extended, rapid emaciation; death occurs 6 to 8 weeks or more. Cattle.

} Cattle only.

6. *Rinderpest.*—Loss of appetite, dulness, staring coat, discharge from eyes and nose, frequent cough, diarrhœa soon mixed with blood, sometimes eruption on skin of neck, ribs, udder and groin; death in from 3 to 7 days; very fatal. Attacks cattle, sheep, camel, goat.

7. *Anthrax.*—Sudden death, with convulsions; the animal falls to the ground, struggles, bleeds from mouth, nose and anus; very rapidly fatal. All animals, especially sheep, goat, ox and horse.

8. *Foot and Mouth Disease.*—Ulcers between claws causing lameness, sometimes also in mouth; fever; not very fatal. Cattle, sheep, goats and camels.

9. *Gloss Anthrax.*—Large red, purple or black blisters of the size of a pigeon's egg on tongue, bloody discharge from mouth, fever; death 24 to 48 hours. Cattle.

} General.

10. *Variola.*—Fever, discharge of glairy matter from nose, cough; eruption on skin of ears and inside arms and thighs, passing through various stages. The skin irritable; animal scratches and pulls hairs out. Sheep and goats; many die.

11. *Rot.*—Gradual emaciation, belly large, mouth and membrane of eyes yellow, pain on pressure over loins; wool comes out. Sometimes diarrhœa and swellings of the body. Sheep and goat.

} Sheep and goats only.

C. V. D. FORM III.

FORWARDING REPORT OF COLLECTOR.

Copy forwarded for information and guidance to { The Inspecting Veterinary Officer, Poona, (all animals). / The Superintendent, Civil Veterinary Department, (all animals).

Do. for information to the Director, Land Records and Agriculture (in all cases).

1	What assistance is being supplied?	
2	Whether further assistance is wanted?	
3	Remarks as to urgency, means of access to area affected, additional information under column 9 of the form, &c.	

(Place) (Date) (Signature)

Collector.

Note.—Collectors should not forward reports of diseases ascertained not to be epidemic or contagious. But reports of epidemic or contagious outbreaks should be forwarded *whether assistance is asked for or not.*

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NOTE by Superintendent, Civil Veterinary Department, on Vernacular Nomenclature of Diseases in the Bombay Presidency.

Province (Sind, Gujarát, Konkan, Deccan, Karnátak.)	District.	Táluka.	Scientific Name.	Vernacular Name (in vernacular script where possible with English *translation) as finally fixed by Superintendent on each report.
1	2	3	4	5

This form will be recorded by the Superintendent as a basis for an index of vernacular names in each táluka, district and province. The absence of such indices has hitherto proved a source of great difficulty in dealing with reports and in prescribing treatment. Column 5 should, if necessary, not be filled up till certainty has been acquired in correspondence with local Veterinary graduates, &c. The unscientific notices of cattle disease in the Gazetteers may be compared and notes should be taken for their correction.

* The Hunterian system of transliteration prescribed by Government should be followed. The Phonetic system is to be strictly avoided, as it cannot be used in the preparation of indices.

(G. R. No. 5220, dated 19th July 1893.)

9. Civil Veterinary Officers should add from time to time to the collection of the drawings which were prepared for the Report of the Cattle Plague Commission, drawings of any fresh specimens of diseases in horses or cattle that may come under their observation and forward a copy of all such to the office of the Inspector-General, Civil Veterinary Department, for record. (G. R. No. 6658, dated 13th September 1893.)

10. The following directions framed by the Director of Land Records and Agriculture for preparing prickly-pear as cattle fodder were circulated to Commissioners and Collectors for distribution to village officers:—

(To Pátels for the information of rayats).

Prickly-pear can be used as a cattle fodder in times of scarcity.

Oxen and buffaloes have been fed on Government farms and elsewhere on prickly-pear with the addition of only a small bundle of hay or "bhusa," and the animals have been found to thrive on this food.

The following directions should be observed:—

1. The leaves of the prickly-pear having been cut must be cleared of the thorns. This is easily done by use of *pinchers, of which the Mámlatdár will supply a pattern.* The pinchers will scoop out a piece of the leaf, taking with it the bunch of thorns. It is of no use to try to *pull* the thorns out.

2. The leaves when free of thorns should be cut up into small pieces, and may then be given to the cattle.

3. For the first few days, a little chuni, dal-husk or bran (about 1-2 lbs.) should be mixed with the pear, and a little salt: during this time no dry fodder should be allowed.

4. After the cattle have become accustomed to the food, the hay or "bhusa" may be added, and salt should be continued throughout.

5. One man can prepare enough food in a day for 5 animals or more (15—20 lbs. each) and a woman or child can easily prepare enough for 3.

(G. R. 4559, dated 13th June 1892.)